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University of Montana provides resources, leadership in first statewide wetlands mapping project

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MEDIA RELEASE

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**UNIVERSITY OF MONTANA PROVIDES RESOURCES,
LEADERSHIP IN FIRST STATEWIDE WETLANDS MAPPING PROJECT**
By Kathryn D. Hubbell, UM News and Publications

MISSOULA --

The University of Montana's School of Forestry is leading a multi-agency, five-year research effort to map Montana's riparian wetlands, those areas which lie between rivers, lakes and streams and the dryer uplands. The results of the research, the nation's first attempt on a state-wide level, are expected to have a large impact on both potential legislation and land management practices affecting farmers and ranchers throughout Montana.

Working under an $85,000 grant from the state Department of Natural Resources and Conservation, the University of Montana's Forest and Conservation Experiment Station has taken the leadership role in developing a formal riparian vegetation classification system. Translated, that means all types of plants in wetlands throughout Montana will be categorized in common terms that everyone, from government agencies to private landowners, can use to better understand the ecology of the wetlands systems. This common language, or taxonomy, is the crucial linchpin around which the entire research project revolves.

The team is led by Paul Hansen, a riparian ecologist at UM

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hired for the project; Robert Pfister, director of the School of Forestry's Mission Oriented Research Program; and Don Bedunah, associate professor in the School of Forestry. Pfister and Ron Batchelor, from the Soil Conservation Service in Bozeman, were originally part of a state-wide Riparian Team in 1981 that laid much of the groundwork for the current program. They learned that while several agencies and organizations in the state had active riparian studies, there was no cooperative approach to establishing classification and management guidelines.

In addition, riparian wetlands had long been the "stray child" of land management information and practice, receiving far less attention and study than timberlands, for example, or agricultural and wilderness areas. The situation was spelled out in the Montana Forest and Conservation Experiment Station's grant application: "Increasing concern for management of fisheries, water quality, wildlife and range in the critical riparian zone have received major attention in the last few years. Competing multiple uses are leading to direct conflicts. Although concern is high, these ecosystems are less studied and less understood than most ecosystems in the state. The problem is complicated by the fragmented multiple ownerships."

Because farmers and ranchers own much of the riparian areas throughout the state, Hansen, Pfister and Bedunah will be working closely with them to help them map and manage their wetlands. The benefit to using "cooperators" is two-fold: the state saves

a great deal of money in not hiring further personnel to handle that portion of the work; and farmers and ranchers learn first-hand how the system of information works, along with obtaining recommendations on how to keep their riparian wetlands at a peak of function and productivity.

The actual mapping and classification is not difficult to do, but is time-consuming. Hansen and his colleagues select an area that they mark out on a grid. They then walk over the ground, noting types of vegetation at each step and how the ecosystem is structured. They carefully note not just "cottonwood trees," but the exact type of cottonwood and how many there are. Riparian areas vary widely, says Hansen, in their ability to endure certain types of treatment. Where camping by one stream may have little or no effect on its riparian system, another streamside spot may contain vegetation that is extremely fragile and cannot recoup after any disturbance. Grazing along one streamside may work well; along another, it may completely deplete the land and affect the quality of the land adversely.

In general, Montana has enjoyed healthy riparian systems which have added greatly to the recreational, environmental and agricultural portions of the state's economy says Dan Hinckley, riparian coordinator for the Bureau of Land Management (BLM) in Montana and co-chairman of the Montana Riparian Association.

"Since the 1930's, range lands and riparian areas have been improving. We have better vegetation growth, water storage,

raised water tables, better fish habitats, grazing and recreation opportunities. Where riparian areas are kept in good condition, intermittent streams -- those which do not flow year-round -- have longer flows. Instead of drying up in July they might now dry up in August, for example."

Hinckley says the BLM expects the research to affect their land in areas such as finding better methods for timber harvest, mining practices, livestock grazing and recreational uses.

Understanding the ecology of the wetlands is just the beginning. The project includes plans for sharing information throughout the state; recommending management practices for individual sites; and providing continued education and training for both agencies and individuals who own or work with riparian areas.

Mons Tiegen, executive vice-president of the Montana Stockgrowers Association, expresses some hesitancy about the project. "I think that they're trying to do something positive," he says. "Private landowners are a little sensitive to the word 'riparian' because government agencies don't own much riparian land. I think the effort's fine, but the concern I have is that some procedures and techniques will be developed in the west, for example (Western Montana) and will be forced upon the east, where riparian areas are quite different."

A major goal of the project, says researcher Hansen, is to avoid that exact situation. Because land owners will be taking

part in the taxonomic classification of their own property and the various state and federal agencies are working together on the project, the resulting data base will contain information specific to each individual site. As a result, landowners will have more knowledge and understanding with which to initiate, change, or continue their land management practices. The research team emphasizes that they are collecting and providing the data only, not forming policy or telling local boards and land owners how to use the information.

Throughout this winter, Hansen and his colleagues will be analyzing the data they've collected in the last year, gradually compiling it into a two-part report on classification and management strategies. Next spring and summer, they will be documenting their data base and holding a series of workshops throughout the state concerning the research. Actual analysis and examination of wetlands ecologies is being conducted as data is gathered. Throughout the study, the team will be sharing information on their findings, holding training sessions and recommending possible management strategies.

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